

Serial No. 09/459,984

Docket No. K-0129

Amdt. dated May 3, 2004

Reply to Office Action of February 3, 2004

REMARKS/ARGUMENTS

Claims 1-30 are pending in the application. By the Amendment, claims 1, 2, 9, 13, 16, and 20 are amended. Support for the claims can be found throughout the specification, including the original claims, and the drawings, for example, at page 12, lines 5-8. Reconsideration in view of the above amendments and the following remarks is respectfully requested.

The Office Action, at page 2, rejects claims 13-30 under 35 U.S.C. §102(b) as being anticipated by Arimilli, U.S. Patent No. 5,757,801. Since Arimilli fails to disclose all the features of the claims, the rejection is respectfully traversed.

Independent claim 13 is directed to a data transmission method that includes, *inter alia*, the features of logically multiplexing signals output from the main controller with a multiplexing processor by assigning channels to user applications, wherein a channel can simultaneously transmit signals of more than one user application. Arimilli neither discloses nor suggests such features, or the combination thereof.

Arimilli is directed to an advanced priority statistical multiplexer 300 that relies on the dynamic adjustment of bandwidth allocation for a large number of channels over time based on the relative complexity associated with each channel. Specifically, Applicant respectfully submits that the advanced priority statistical multiplexer 300 of Arimilli reduces the bandwidth dedicated to a given voice channel based upon priority designations assigned to the voice channel relative

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to detected “silence” or inactivity or data redundancy. See, for example, column 3, lines 1-22 of Arimilli. Thus, as described in Arimilli, an individual channel cannot simultaneously transmit data of more than one user application.

Independent claim 20 is directed to a data transmission method that includes, *inter alia*, the features of a first demodulator/modulator configured to modulate a first type of communication signal provided from the main controller, a second demodulator/modulator configured to modulate a second type of communication signal provided from the main controller, and a third demodulator/modulator configured to modulate a third type of communication signal provided from the main controller. Arimilli neither discloses nor suggests such features, or the combination thereof.

Arimilli does not disclose or suggest a conversion processor configured to modulate three distinct types of communication signals. More particularly, Applicant submits that the advanced priority statistical multiplexer 300 of Arimilli does not conduct modulation/demodulation of three distinct types of communication signals, such that the modulation of the three distinct types of signals allows for the eventual logical demultiplexing of externally provided multiplexed input signals of varying types of communication signals from multiple user applications.

Accordingly, it is respectfully submitted that independent claims 13 and 20 are not anticipated by Arimilli, and thus the rejection of independent claims 13 and 20 under 35 U.S.C. §102(b) over Arimilli should be withdrawn. Dependent claims 14-19 and 26-30 are allowable for

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at least the reasons discussed above with respect to independent claims 13 and 20, from which the claims ultimately depend, respectively, as well as for the additional patentable features recited therein and the combination thereof.

The Office Action, at page 6, rejects claims 1-12 under 35 U.S.C. § 103(a) as being unpatentable over Arimilli. Since Arimilli fails to teach or suggest all the features of the claims, the rejection is respectfully traversed.

Independent claim 1 is directed to an apparatus for multiplexing a line, which includes, *inter alia*, the features of a multiplexing/demultiplexing processor configured to logically multiplex processed signals output from the main controller by assigning channels to user applications, wherein multiple user applications can be assigned to a channel. Arimilli neither discloses nor suggests such features, or the combination thereof.

As discussed above with respect to claim 13, Arimilli is directed to an advanced priority statistical multiplexer 300 that preserves overall bandwidth by suppressing the transmission of low priority voice information of channels in which such information is detected and which are assigned to respective user applications. Thus, as described in Arimilli, multiple user applications cannot be assigned to a channel.

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Accordingly, it is respectfully submitted that independent claim 1 is not unpatentable over Arimilli, and thus the rejection of independent claim 1 under 35 U.S.C. §103(a) over Arimilli should be withdrawn. Dependent claims 3-12 and 21-25 are allowable for at least the reasons discussed above with respect to independent claim 1, from which the claims ultimately depend, as well as for the additional patentable features recited therein.

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CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney, **Carol L. Druzbeck**, at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
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